We claim:

1. A method for detection of a leak in an intake manifold of an internal combustion engine, comprising the steps of:
- determining a supplied amount of fuel as a function of the amount of air flowing through the intake manifold at an air flow measurement site and a reference signal of a lambda control,
- measuring the oxygen content of the exhaust of the internal combustion engine after combustion;
- influencing the reference signal, so that the oxygen content of the exhaust assumes a certain value, and
- monitoring the evaluation signal with reference to surpassing or falling short of a threshold, wherein the evaluation signal is generated as a function of the reference signal of the lambda control.

2. The method according to Claim 1, wherein the dependence of the supplied amount of fuel on the inflowing amount of air is a specified stoichiometric ratio between the air amount and fuel amount.

3. The method according to Claim 1, wherein the detection of a leak in the intake manifold is carried out during idle of the internal combustion engine.

4. The method according to Claim 1, wherein the evaluation signal is generated by multiplication of the reference signal of the lambda controller by at least one correction value, which is generated as a function of at least one adaption value that is generated by the lambda control in specific operating phases of the internal combustion engine and used to influence the reference signal of the lambda control.

5. The method according to Claim 4, wherein the at least one correction value is generated as a function of the change of at least one adaption value.

6. The method according to Claim 4, wherein a multiplicative adaption value is generated that has a multiplicative effect during determination of the reference signal.

7. The method according to Claim 4, wherein an additive adaption value is generated that acts additively during determination of the reference signal.

8. The method according to Claim 1, wherein the evaluation signal is generated by multiplication of the reference signal of the lambda controller with a height correction value that is generated as a function of the level at which the internal combustion engine is situated.

9. The method according to Claim 1, wherein the evaluation signal is generated by multiplication of the reference signal of the lambda controller with a temperature correction value that is generated as a function of the temperature of the internal combustion engine.

10. The method according to Claim 1, wherein during the period of a measurement window, a first time period is measured, in which the evaluation signal exceeds the threshold value, and a second time period is determined, in which the reference signal falls short of the threshold value, the difference between the first and the second time periods is referred to the duration of the measurement window to obtain a reference quantity, and the reference quantity and is compared with an error threshold to detect a leak in the intake manifold.

11. The method according to Claim 10, wherein the total time of the measurement window lasts 8 seconds and detection of a leak is only permitted after a minimum time period of 4 seconds.

12. An internal combustion engine comprising an intake manifold, a control device and a lambda control, in which the control device is set up so that it determines the amount of air flowing through the intake manifold by means of an air flow meter and determines a supplied amount of fuel as a function of the determined amount of air and a reference signal of the lambda control, and the lambda control is set up, so that it measures the oxygen content of the gas of the internal combustion engine by means of a lambda probe and influences the reference signal, so that the oxygen content assumes a specific value and the control device is also set up, so that it generates an evaluation signal as a function of the reference signal of the lambda control and monitors it with reference to surpassing or falling short of a threshold value.

13. The internal combustion engine according to Claim 12, wherein the dependence of the supplied amount of fuel on the inflowing amount of air is a specified stoichiometric ratio between the air amount and fuel amount.

14. The internal combustion engine according to Claim 12, wherein the control device operates during idle of the internal combustion engine.

15. The internal combustion engine according to Claim 12, wherein the evaluation signal is generated by multiplication of the reference signal of the lambda controller by at least one correction value, which is generated as a function of at least one adaption value that is generated by the lambda control in specific operating phases of the internal combustion engine and used to influence the reference signal of the lambda control.

16. The internal combustion engine according to Claim 15, wherein the at least one correction value is generated as a function of the change of at least one adaption value.

17. The internal combustion engine according to Claim 15, wherein the control device generates a multiplicative adaption value that has a multiplicative effect during determination of the reference signal.

18. The internal combustion engine according to Claim 15, wherein the control device generates an additive adaption value that acts additively during determination of the reference signal.

19. The internal combustion engine according to Claim 15, wherein the control device generates the evaluation signal by multiplication of the reference signal of the lambda controller with a height correction value that is generated as a function of the level at which the internal combustion engine is situated.

20. The internal combustion engine according to Claim 12, wherein the control device generates the evaluation signal by multiplication of the reference signal of the lambda controller with a temperature correction value that is generated as a function of the temperature of the internal combustion engine.

21. The internal combustion engine according to Claim 12, wherein during the period of a measurement window, the control device measures a first time period, in which the evaluation signal exceeds the threshold value, and determines a second time period, in which the reference signal falls short of the threshold value, the difference between the first and the second time periods is referred to the duration of the measurement window to obtain a reference quantity, and the control device compares the reference quantity with an error threshold to detect a leak in the intake manifold.

22. The internal combustion engine according to Claim 21, wherein the total time of the measurement window lasts 8 seconds and detection of a leak is only permitted after a minimum time period of 4 seconds.